O590





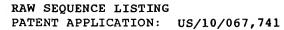
OIPE

RAW SEQUENCE LISTING DATE: 04/17/2002 PATENT APPLICATION: US/10/067,741 TIME: 11:54:33

```
1 <110> APPLICANT: Dean A. Falb
         Katherine Galvin
         Michael Donovan
 4
         Dennis Huszar
 5
        Michael A. Gimbrone, Jr.
  <120> TITLE OF INVENTION: Compositions and Methods for the Treatment and
         Diagnosis of
         Cardiovascular Disease
 9 <130> FILE REFERENCE: 7853-140-999
10 <140> CURRENT APPLICATION NUMBER: 10/067,741
11 <141> CURRENT FILING DATE: 2002-02-08
13 <150> PRIOR APPLICATION NUMBER: US/09/288,292
14 <151> PRIOR FILING DATE: 1999-04-08
                                                   ENTERED
16 <150> PRIOR APPLICATION NUMBER: 08/870,434
17 <151> PRIOR FILING DATE: 1997-06-06
18 <150> PRIOR APPLICATION NUMBER: 08/799,910
19 <151> PRIOR FILING DATE: 1997-02-13
20 <150> PRIOR APPLICATION NUMBER: 60/011,787
21 <151> PRIOR FILING DATE: 1996-02-16
22 <150> PRIOR APPLICATION NUMBER: 08/485,573
23 <151> PRIOR FILING DATE: 1995-06-07
24 <150> PRIOR APPLICATION NUMBER: 08/386,844
25 <151> PRIOR FILING DATE: 1995-02-10
26 <160> NUMBER OF SEQ ID NOS: 46
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 1953
31 <212> TYPE: DNA
32 <213> ORGANISM: Homo sapiens
33 <220> FEATURE:
34 <221> NAME/KEY: CDS
35 <222> LOCATION: (162)...(1871)
36 <400> SEQUENCE: 1
37
        ggcacgagtc ggagccgggc ggaggggagg ggggaaagag gagcgcaggg tgagagtgag
                                                                                60
38
        ccgcaggctt cgggaggcga gggggcgggg ggagcagcgc cgaggycgcc gcctccgcct
                                                                               120
39
        ccgccgccta ggactagggg gtgggggacg gacaagcccc g atg ccg ggg gag acg
                                                                               176
40
                                                       Met Pro Gly Glu Thr
41
42
        gaa gag ccg aga ccc ccg gag cag cag gac cag gaa ggg gga gag gcg
                                                                               224
43
        Glu Glu Pro Arg Pro Pro Glu Gln Gln Asp Gln Glu Gly Gly Glu Ala
44
                          10
                                              15
45
        gcc aag gcg gct ccg gag gag ccc caa caa cgg ccc cct gag gcg gtc
                                                                               272
46
        Ala Lys Ala Ala Pro Glu Glu Pro Gln Gln Arg Pro Pro Glu Ala Val
```

RAW SEQUENCE LISTING DATE: 04/17/2002 PATENT APPLICATION: US/10/067,741 TIME: 11:54:33

47				25					30					35			
48	aca	aca	aca		σca	ggg	acc	act		aσc	cac	ata	cta		σσα	aat	320
49						Gly											
50	1114		40	110	,,,,	0-1		45	J.	551	9		50	5	1	021	
51	caa	gac		aac	caa	gcc	act		acc	acc	acc	acc	_	act	ata	tcc	368
52						Ala											
53	**** 9	55	••••	011	*** 9		60					65					
54	cac		agg	ааσ	ggg	gag		ccc	cac	caa	caa		aσc	aσc	ccc	agc	416
55	_			_		Glu				-							
56	70	9	**** 9	_		75	-1-		9	9	80		002			85	
57		agg	cct	aaa	gac	gtc	ccc	aaa	cag	caσ		cag	acc	aca	aaσ		464
58						Val											
59		5			90			1		95					100		
60	cca	tct	cca	att		ggc	aaσ	aaq	agt		сча	ctc	cta	tac		qaa	512
61	_			-	-	Gly	-	-	-	_	-			_		_	
62				105		1	_1 -	•	110		,			115			
63	aaa	qta	aca		gat	aaa	gat	ccc	aaq	qaa	gaa	aaa	gag	gaa	gaa	gac	560
64						Lys											
65			120		•	-	-	125	-			•	130			_	
66	gat	tct	qcc	ctc	cct	cag	gaa	gtt	tcc	att	gct	gca	tct	aga	cct	agc	608
67						Gln											
68	•	135					140					145		_			
69	cgg	ggc	tgg	cgt	agt	agt	agg	aca	tct	gtt	tct	cgc	cat	cgt	gat	aca	656
70						Ser											
71	150	_	_	_		155	_				160					165	
72	gag	aac	acc	cga	agc	tct	cgg	tcc	aag	acc	ggt	tca	ttg	cag	ctc	att	704
73	Glu	Asn	Thr	Arg	Ser	Ser	Arg	Ser	Lys	Thr	Gly	Ser	Leu	Gln	Leu	Ile	
74					170					175					180		
75						aat											752
76	Cys	Lys	Ser	Glu	Pro	Asn	Thr	Asp	Gln	Leu	Asp	Tyr	Asp	Val	Gly	Glu	
77				185					190					195			
78	gag	cat	cag	tct	cca	ggt	ggc	att	agt	ggt	gaa	gag	gaa	gag	gag	gag	800
79	Glu	His	Gln	Ser	Pro	Gly	Gly	Ile	Ser	Gly	Glu	Glu	Glu	Glu	Glu	Glu	
80			200					205					210				
81	_	_		_		atc	_	-									848
82	Glu	Glu	Glu	Met	Leu	Ile	Ser	Glu	Glu	Glu	Ile	Pro	Phe	Lys	Asp	Asp	
83		215					220					225					
84						tac											896
85		Arg	Asp			Tyr							Glu				
86	230					235											
87						ggg											944
88	Pro	Arg	Arg	Lys		Gly	Lys	Val	Lys		Glu	Lys	Glu	Lys		Glu	
89					250					255					260		222
90						gag											992
91	Ile	Lys	Val		Val	Glu	Val	Glu		Lys	Glu	Glu	Glu		GLu	IIe	
92				265		_			270					275			
93	_		_		-	cct			-	-		_	-				1040
94	Arg	Glu		Glu	Glu	Pro	Pro		гàг	Arg	GLY	Arg		arg	ьys	Asp	
95			280					285					290				



DATE: 04/17/2002 TIME: 11:54:33

96 97	_		-		_					-		aag Lys				-	1088
98		295					300					305					
99												gtc					1136
100	Tyr	· Val	. Arg	Cys	Glu	Met	Glu	Gly	Cys	Gly	Thi	· Val	Leu	Ala	His	Pro	
101	310)				315					320)				325	
102	_		_	-						_		: ttg	_	_	_		1184
103	Arg	Туг	Leu	Glr		His	Ile	Lys	Туг			Leu	Leu	Lys		Lys	
104					330					335					340		
105												ttc					1232
106	Tyr	· Val	. Cys			Pro	Ser	Cys			Leu	Phe	Arg		Gln	Lys	
107				345					350					355			
108												caa					1280
109	Gln	Leu			His	Ala	Lys			Thr	Asp	Gln			Tyr	Ile	
110			360					365			Ċ		370				
111												cac					1328
112	Cys		_	Cys	Ala	Arg			Lys	Ser	· Ser	His	Asn	Leu	Ala	Val	
113		375					380					385					
114			_						_			caa	-			-	1376
115		-	Met	ITe	Hls		_	GLu	Lys	Pro		Gln	Cys	GLu	шe		
116	390			4		395				_ 4_ 4_	400					405	1 4 2 4
117	-			_				-				. tgg					1424
118	GIY	Pne	rnr	Cys	_	GIn	ьys	Ата	ser			Trp	Hls	мет	_	гаг	
119					410					415			_4_	44	420		1470
120		_		_				-				aat			-		1472
121	HIS	ASP	Ald	425		Pne	TAT	GIII	430		Cys	Asn	TTE	435	GIY	гуя	
122 123	222	. +++	~~~			~~~	200	~+ ¬					~~~		200	a2.a	1520
123				-	_	-	_	-		-		aag Lys	-		_		1320
125	БУБ	Pile	440	_	L LIYS	АБР	261	445		Ala	nıs	р пув	450	_	261	птэ	
126	act				2++	ac a	ma a			act	acc	aat			acc	ctc	1568
127						-			_			Asn					1500
128	110	455		ше	110	niu	460		ДСС			465	11.14	OI1	····	ДСи	
129	ato			aca	σat	atc			act	aac	cca	gag	tcc	cta	acq	cag	1616
130			-		_							Glu			-		1010
131	470		-			475		0_1			480					485	
132			gat	aat	саσ			cct	ctt	ctt		gag	ccc	tta	σσα		1664
133			_		_							Glu		_	_		
134			1	1	490	1				495					500		
135	tca	acc	tct	qqa	gag	tqc	cta	ctq	tta	gaa	gct	gaa	qqq	atq	tca	aag	1712
136												Ğlu					
137				505		•			510				-	515		-	
138	tca	tac	tgc	agt	ggg	acg	gaa	cgq			ctq	atg	gct	gat	ggg	aag	1760
139												Met					
140		_	520		-			525					530		_		
141	atc	ttt	gtg	gga	agc	ggc	agc	agt	gga	ggc	act	gaa	ggg	ctg	gtt	atg	1808
142												Glu					
143		535					540					545					
144	aac	tca	gat	ata	ctc	ggt	gct	acc	aca	gag	gtt	ctg	att	gaa	gat	tca	1856

RAW SEQUENCE LISTING DATE: 04/17/2002 PATENT APPLICATION: US/10/067,741 TIME: 11:54:33

145		Asn	Ser	Asp	Ile	Leu	Gly	Ala	Thr	Thr	Glu	Val	Leu	Ile	Glu	Asp	Ser	
146		550 555 560 565 gac tct gcc gga cct tagtggacag gaagacttgg ggcatgggac agctcagact																
147								tgga	cag	gaag	actt	gg g	gcat	ggga	c ag	ctca	gact	1911
148		Asp	Ser	Ala	Gly													
149						570												
150		ttgtatttaa aagttaaaaa ggacaaaaaa aaaaaaaaaa															1953	
	<211>				3													
	<212>																	
	<213>				omo	sapi	ens											
	<220>																	
	<221>						1											
		LOCATION: (288)(1565) SEQUENCE: 2																
160	<400>												4					
161		gcacgagcgg agagccgcgc agggcgcggg ccgcggggg tggggcagcc ggagcgcagg															60	
162		cccccgatcc ccggcgggcg cccccgggcc cccgcgcgcg ccccggcctc cgggagactg gcgcatgcca cggagcgcc ctcgggccgc cgccgctcct gcccgggccc ctgctgctgc															120	
																		180
163																	catgtt	240
164 165		cgc	LCCL	cag	cagg	caaa	cg a	CLLL	tete	C TC	gcct	CCTC	gcc	ccgc	_			296
166																Phe	Arg	
167		200		~~~	+-+		-+-								1			244
168					tct													344
169		THI	ьуs 5	Arg	Ser	Ата	ьeu		Arg	Arg	ьeu	Trp	-	ser	Arg	Ата	Pro	
170		~~~	•	~~~	~~~	~~~		10					15					200
171					gac													392
172		20	GTĀ	GIU	Asp	GIU	25	GIU	СТУ	Ald	GIY	_	GIY	СТУ	GTĀ	GTĀ	_	
173			a+a	000	~~~	~~~		~~~		~~~		30	~~-				35	440
174					gga								_			_		440
175		GIU	пеп	AIG	Gly	40	GIY	Ald	THE	Asp	45	AIG	Ald	HIS	GTA	50	GIĀ	
176		aac	aac	aac	ccg		aaa	act	aa a	+ a a		ata	~~~	224	~~~		943	488
177					Pro													400
178			OLI	011	55	OLY	nr 9	nia	GLY	60	Cys	шси	GLY	цуз	65	Val	AIG	
179		aat.	acc	aaa	ggt	cac	cac	cat	CCC		cca	cca	acc	ασα		acc	aac	536
180					Gly													330
181		1		70	1				75					80	011		011	
182		aca	qcc		ggc	qcc	σασ	aca		cta	ааσ	aca	ctc		cac	t.ca	ata	584
183					Gly													301
184			85		2			90			-1-		95			-	,	
185		ctc	aaσ	aaa	ctg	aaσ	σασ		caq	cta	σασ	cta		ctc	caσ	ggg	at.a	632
186					Leu													002
187		100	•			-4-	105	5				110					115	
188		gag	tcc	cgc	ggc	qqq	acq	cqc	acc	qcq	tqc		ctq	ctq	ccc	aac		680
189					Gly													
190					-	120		_			125					130	_	
191		ctg	gac	tgc	agg	ctg	ggc	ccg	ggg	gcg	ccc	gcc	ggc	gcg	cag		gcg	728
192					Arg													
193					135		_		_	140			-		145			
194		cag	ccg	ccc	tcg	tcc	tac	tcg	ctc	ccc	ctc	ctg	ctg	tgc	aaa	gtg	ttc	776
												_	_			-		

RAW SEQUENCE LISTING DATE: 04/17/2002 PATENT APPLICATION: US/10/067,741 TIME: 11:54:33

195 196	Gln	Pro	Pro 150	Ser	Ser	Tyr	Ser	Leu 155	Pro	Leu	Leu	Leu	Cys 160	Lys	Val	Phe	
		.							.								824
197		tgg	_	_					_	-							024
198	Arg	Trp	Pro	Asp	Leu	Arg		ser	Ser	GLU	vaı		Arg	ьeu	Cys	Cys	
199		165					170					175					
200	-	gaa				_				-	_						872
201	Cys	Glu	Ser	Tyr	Gly	Lys	Ile	Asn	Pro	Glu	Leu	Val	Cys	Cys	Asn	Pro	
202	180					185					190					195	
203	cat	cac	ctt	agc	cga	ctc	tgc	gaa	cta	gag	tct	ccc	CCC	cct	cct	tac	920
204	His	His	Leu	Ser	Arg	Leu	Cys	Glu	Leu	Glu	Ser	Pro	Pro	Pro	Pro	Tyr	
205					200					205					210		
206	tcc	aga	tac	ccg	atg	gat	ttt	ctc	aaa	cca	act	gca	gac	tgt	cca	gat	968
207	Ser	Arg	Tyr	Pro	Met	Asp	Phe	Leu	Lys	Pro	Thr	Ala	Asp	Cys	Pro	Asp	
208		_	_	215		_			220				_	225			
209	act	gtg	cct	tcc	tcc	qct	qaa	aca	qqq	qqa	acq	aat	tat	ctq	qcc	cct	1016
210		Val															
211			230					235	1	1			240				
212	aaa	ggg		tca	αat	tcc	caa		ctt	cta	ααα	cct		gat	caa	tca	1064
213		Gly			_					-				-			1001
214	Gry	245	пса	561	KSP	JCI	250	пса	пса	пса	Gra	255	GLI	nop	1119	001	
	a 2 a		+ ~ ~	~+ ~	a+ a	~~~		+~~	~~~	~~~	224		242	a+ a	~~~	200	1112
215		tgg	_			-											1112
216		Trp	Cys	vaı	Val		TĀT	ттр	GIU	GIU		THE	AIG	Val	СТУ		
217	260					265					270					275	1160
218		tac	-	_	_				_	-				-			1160
219	Leu	Tyr	Cys	Val		GLu	Pro	Ser	Leu	_	TTE	Pne	Tyr	Asp		Pro	
220					280					285					290		
221	_	ggg															1208
222	Gln	Gly	Asn	-	Phe	Cys	Leu	Gly		Leu	Asn	Ser	Asp		Lys	Ser	
223				295					300					305			
224	cag	ctg	gtg	cag	aag	gtg	cgg	agc	aaa	atc	ggc	tgc	ggc	atc	cag	ctg	1256
225	Gln	Leu	Val	Gln	Lys	Val	Arg	Ser	Lys	Ile	Gly	Cys	Gly	Ile	Gln	Leu	
226			310					315					320				
227	acg	cgg	gag	gtg	gat	ggt	gtg	tgg	gtg	tac	aac	cgc	agc	agt	tac	CCC	1304
228	Thr	Arg	Glu	Val	Asp	Gly	Val	Trp	Val	Tyr	Asn	Arg	Ser	Ser	Tyr	Pro	
229		325					330					335					
230	atc	ttc	atc	aag	tcc	gcc	aca	ctg	gac	aac	ccg	gac	tcc	agg	acg	ctg	1352
231	Ile	Phe	Ile	Lys	Ser	Ala	Thr	Leu	Asp	Asn	Pro	Asp	Ser	Arg	Thr	Leu	
232	340			-		345			_		350	_		•		355	
233	tta	gta	cac	aaq	qtq	ttc	ccc	ggt	ttc	tcc	atc	aag	qct	ttc	gac	tac	1400
234	_	Val		-								-	_		-		
235				-1-	360			1		365		2			370	-4	
236	gag	aag	aca	tac		cta	car	caa	CCC		gac	cac	σασ	+++		cag	1448
237		Lys															2110
238	OIU	213		375	401	Lcu	0111	*** 9	380	11011			- L u	385		5-11	
239	~~~	ccg	+ ~~		aac	+++	200	ata		a + C	200	+++	ata		aac	+ aa	1496
240		Pro															1490
	GIII	FIO	390	TIII	GTÅ	FIIE	TIIT	395	GIII	TTG	261	FIIE	400	пÃр	GIY	ттЪ	
241				.					- + -			+		+	+	a+-	1 5 4 4
242		cag	_			_	_			-	_	-	_	_			1544
243	Gly	Gln	Cys	Tyr	Thr	Arg	GIn	Phe	шe	Ser	Ser	Cys	Pro	Cys	Trp	Leu	

VERIFICATION SUMMARY DATE: 04/17/2002 PATENT APPLICATION: US/10/067,741 TIME: 11:54:34

Input Set : N:\Crf3\RULE60\10067741.raw
Output Set: N:\CRF3\04172002\J067741.raw

L:401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:992 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:1003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37
L:1015 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:1026 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:1038 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:1050 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41
L:1062 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42